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PROCEDURES AND TRAINING FOR ONE-MAN POLICE PATROL CARS

What are the factors to be considered for the installation of one-man patrol cars? What steps should be taken to establish beats and train patrolmen?

The 1956 *Municipal Year Book* reports that 756 of the 951 cities over 10,000 population use one-man police patrol cars to some extent. Those using one-man cars exclusively number 190 cities. The trend toward the use of one-man patrol cars and the arguments for and against their installation have been discussed in MIS Report No. 35, *Trend Toward One-Man Police Cars* (April, 1947), and MIS Report No. 82, *Operation of One-Man Police Patrol Cars* (November, 1950).

This report summarizes the steps needed for successful installation and operation of one-man police patrol cars. It reviews the reorganization of patrol districts in several cities and outlines the forms of training needed for patrolmen and dispatchers. This report is not a detailed manual of training methods and procedures, but it does review the methods of several cities and provide references for more detailed information.

Defining the Patrol District

Beat areas should be established and patrols assigned on the basis of hourly and areal fluctuations of police incidents, hazards, and other police actions. Factors to be considered in setting up patrol areas include the physical size of the area, geographical characteristics, land use, population density, and racial and cultural characteristics. These sociological factors should be combined with factors of hourly incidence and type of crime, number of arrests, police hazards, inspectional services, and the like.

The installation of one-man patrol cars most likely will necessitate beat reorganization. Kansas City, Missouri, expanded the number of patrol districts from 24 to 41 (see Figure 1). The average size of the separate beat areas was reduced from 3.4 square miles to 1.9 square miles. One-man cars patrol these 41 districts and 12 additional cars operate throughout the city from 8:00 p.m. to 4:00 a.m., the peak period of police workload.

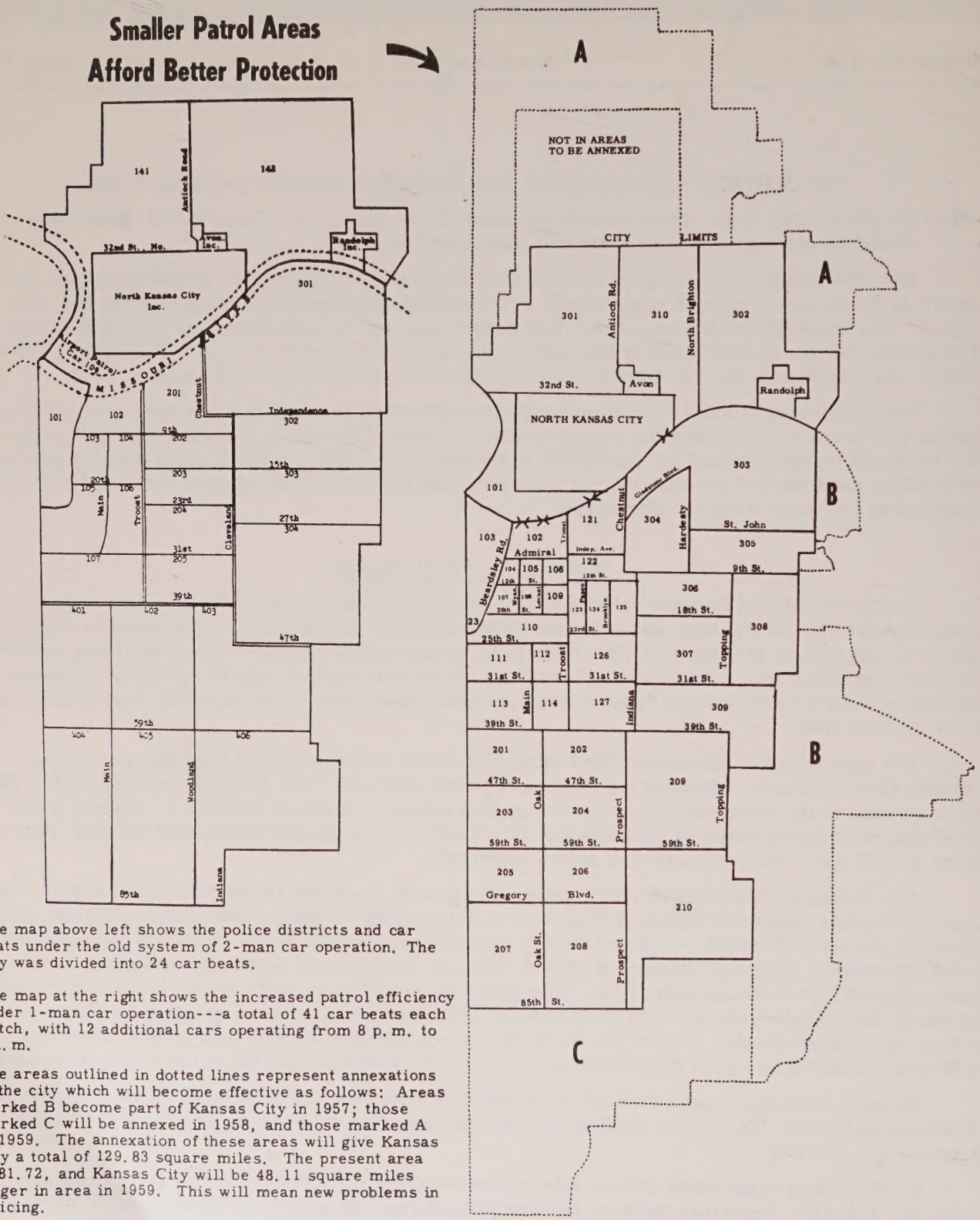
The Pomona, California (47,928), police department meets the fluctuating need for police service in a manner somewhat different from that of Kansas City. Figure 2 shows four different patrol districts for four different periods of the day and reflects the differences in police incidents and need for service. The city during the period 7:00 a.m. to 3:00 p.m. is divided into three districts each covered by a one-man patrol car. The 3:00 p.m. to 6:00 p.m. shift covers five districts, four of which are patrolled by one-man cars and the fifth, the district with the greatest incidence of crime, by a two-man car. Two of the six districts are patrolled by two-man cars in the period 6:00 p.m. to 2:00 a.m. Four districts from 2:00 a.m. to 7:00 a.m. are patrolled by one-man cars.

Phoenix, Arizona, uses a still different method in meeting the problem of fluctuating periods of crime incidence. The city is divided into 20 stationary beats, but beats are combined during hours of low activity.

O. W. Wilson in his book, *Police Administration* (New York, McGraw-Hill Book Company, Inc., 1950, pp. 473-512), describes the step-by-step procedures that should be taken in establishing patrol areas and in the assignment of men to these areas. Pomona in its 1955 report, *Patrol Force*

Figure 1

Police Car Beats, Kansas City, Missouri



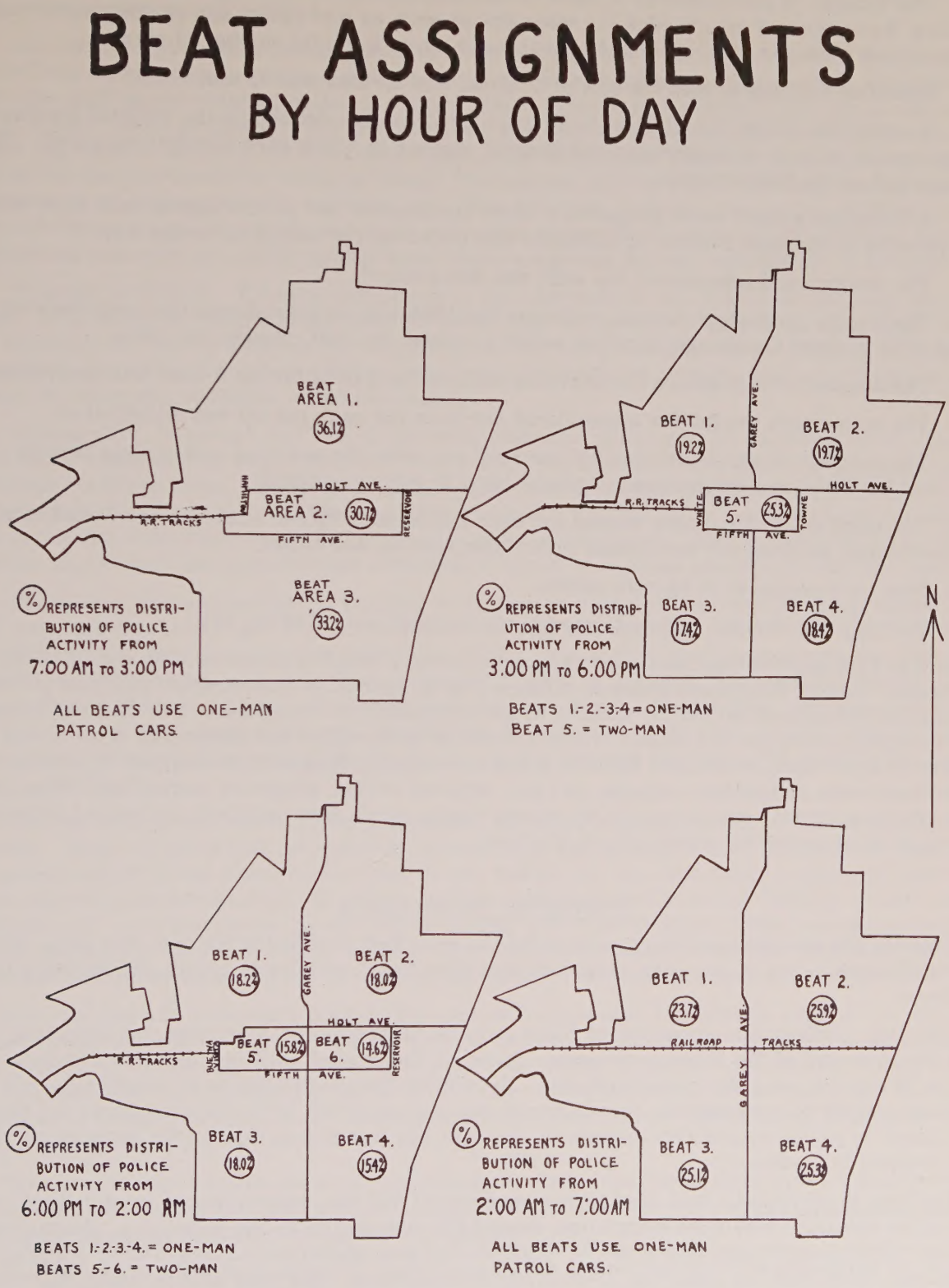
The map above left shows the police districts and car beats under the old system of 2-man car operation. The city was divided into 24 car beats.

The map at the right shows the increased patrol efficiency under 1-man car operation---a total of 41 car beats each watch, with 12 additional cars operating from 8 p.m. to 4 a.m.

The areas outlined in dotted lines represent annexations to the city which will become effective as follows: Areas marked B become part of Kansas City in 1957; those marked C will be annexed in 1958, and those marked A in 1959. The annexation of these areas will give Kansas City a total of 129.83 square miles. The present area is 81.72, and Kansas City will be 48.11 square miles larger in area in 1959. This will mean new problems in policing.

Figure 2

Police Car Beats, Pomona, California



Distribution has applied Wilson's procedures in the analysis of the city and the establishment of the patrol districts. A summary of the steps taken in Pomona is as follows:

1. The number of patrolmen to be used in manning one-man patrol cars was determined by subtracting the number of men needed for other duties such as foot patrol and parking meter patrol, with allowances made for sick relief and annual leave, from the total number of men.

2. Based on the census map the city of Pomona was divided into 62 districts.

3. A count was made of each Part I and Part II offense (as defined by the Federal Bureau of Investigation) as to time of occurrence and district number in which each incident occurred. These were recorded on the district map.

4. A table and a chart were prepared to show the number and percentage of each type of incident in relation to the total number of incidents that occurred for each hour in the day.

5. The number and schedule of the shift was determined.

6. The hourly percentage of total incidents for 1954 was compared with the same data for 1952 and 1953 to show the change of police activity created by shift changes for 1954.

7. The number of man-hours for services and routine patrol for each shift was determined.

8. The man-hours needed for inspectional services for each period was ascertained.

9. The number of man-hours needed per shift for calls for services and routine patrols (step 7) and for court and inspectional services (step 8) were computed.

10. The number of man-hours needed for each police activity per shift was converted to number of patrolmen, allowing for continuous eight-hour service and relief.

11. Men were assigned to specific shifts.

12. The city was divided into motorized beats for each period of the day.

Kansas City and Pomona have used census tracts as a point of reference for establishing patrol areas. Census tracts are areas in which a city is divided so that comparisons can be made from time period to time period for statistical and administrative purposes. Use of these areas for beat mapping is logical for census tracts are set up with regard for uniformity of area and population (a tract usually contains 3,000 to 6,000 inhabitants), and each is designed to embrace a fairly homogeneous population — similar in race, national origin, economic status, and living conditions. Socio-economic data prepared by census tracts supplement incident and hazard information and is of aid in orienting the patrolman to his beat.

Training for One-Man Cars

Training for one-man patrol cars includes the selection of officers for one-man duty, indoctrinating officers in use of one-man cars, and providing basic training in patrol and dispatching procedures.

Selection. Unless the entire patrol force is to be shifted to one-man cars, the selection of men is the first step of the training process. Physical and mental abilities necessary to man the cars are, of course, necessary prerequisites. In addition the qualifications of adaptibility and open-mindedness should be considered. An old-timer who has patrolled with a fellow officer for years is less likely to grasp the positive aspects of one-man car operations than is the younger patrolman not yet steeped in tradition.

Training in Attitudes. Men used to two-man patrol and the companionship provided by a fellow officer quite naturally may have misgivings toward the conversion to one-man cars. Suspicions caused by differences in procedure can be dispersed by pre-operation training and by pointing up the cautions which must be observed in a variety of situations. The view held by many patrolmen of the increased danger of one-man cars can be countered by citing the experience of cities who have found one-man patrols as safe or safer than two-man patrols.

Perhaps the adverse attitude that can be attributed to the severing of companionship provided in two-man cars cannot be directly overcome. The best procedure would be to emphasize the positive effects of one-man patrol such as the more efficient use of manpower, the decrease in beat size, and prompter police service.

Los Angeles uses daily training bulletins with factual information on one-man cars as well as instructions on how to proceed in a certain situation. For instance, an introductory remark to one of the one-man patrol training bulletins reads, "Experience has proved that officers in one-man cars are alert and less prone to accidental injury than two-man crews. However, the always hazardous business of stopping cars to issue citations or interrogate suspects presents some additional hazards for the patrol officer working alone. Techniques used by a two-man unit are not necessarily best suited to the operation of a one-man car. The following bulletins give tried and approved pull-over techniques which, if used by one-man units, will minimize the danger to the officer. Procedures for stopping suspects are differentiated from those suggested for use with traffic violators."

Training in Patrol. Training patrolmen in the operation of one-man cars can take different forms. It is essential when a department is converting to one-man cars for the first time. It is also essential for rookie training for a department now using one-man cars. Finally, it is helpful for refresher training for veteran police patrolmen, supervisors, and dispatchers to keep them abreast of changing conditions in the community.

Kansas City, Missouri, has one of the most extensive programs for training for one-man patrol cars. Kansas City limits recruit classes to 30 students and uses such training aids as movie projectors, training films, slides, film strips, tape recorders, and models of actual police situations. The indoctrination training for police recruits is divided into two parts — a nine-week academic program and a six-week field observer program in patrol procedures. This training is for all phases of police patrol work but considerable emphasis is given to training specifically for one-man cars.

Forty-four hours of academic training is devoted to patrol duties with 10 of the 44 hours covering one-man patrol car operations. Another four hours of academic instruction and field demonstrations are allowed for the use of patrol car radio. One-man patrol training includes how to patrol the beat; pedestrian checks; how to keep a suspect in view; car checks and building checks; combination car patrol and foot patrol; and when to summon assistance. Dispatching and communications instructions deal with ways of keeping the dispatcher informed of current location, how to answer when called, when an officer is allowed to go out of service, how to respond to a call from another officer, and the like.

The one-man patrol car training in Kansas City is an integral part of an extensive orientation program. Other subjects that are covered include such topics as search of suspects on foot by one man, preservation of the scene of a crime, driver school for one-man cars, stopping of cars by one officer and procedures to follow, directing traffic, physical training in self defense, report writing, preparation of court testimony, mechanics of arrest, and other subjects. The training is concluded with 288 hours (six weeks) of riding with an experienced patrolman as a patrol observer. The rookie is then put on duty by himself with the remainder of the first year as a probationary period.

The training and procedure manual that has been developed in tentative form by the Kansas City police department includes a detailed section on procedures for one-man patrol cars with nine major headings: knowledge of community and beat; operation of patrol vehicles; patrolling the beat area; responding to calls requiring two or more cars; investigation of suspicious pedestrians; investigation of suspicious motorists; building inspection procedures; transporting prisoners; and communications procedures.

The third of these major subjects, patrolling the beat area, is reproduced as a supplement to this report. A review of this material will suggest a number of approaches to training for one-man patrol car operations including occasional foot patrol.

Pomona, California, following the reorganization of police districts, proceeded to an intensive indoctrination of all members of the uniform division in the operation of one-man police cars. These men attended a two-week school conducted by the Los Angeles office of the Federal Bureau

of Investigation on the use of the one-man patrol car. This particular training program is a new one recently developed by the FBI.

In conjunction with this training the Pomona police department developed rules and regulations governing the operation of one-man cars. A portion of these rules dealing with patrol procedures is reproduced as a supplement to this report. Officials in smaller communities may find these regulations of help in developing training procedures for police patrolmen.

Training in Communications. Communications by two or three-way radio and the assignment and reassignment of officers by the police dispatcher comprise the heart of one-man patrol car operations. This is of particular importance in those cities that give the dispatcher a certain amount of discretion as to how many cars to send to the scene of a crime.

Kansas City uses three-way radios in every police patrol car, and the dispatcher is in charge of all cars on duty. The radio transmissions from the dispatcher to the patrol car are of four major types: (1) routine call which is originated by dispatcher calling a car to handle a non-hazardous assignment; (2) general information which is a call from the dispatcher to all cars in service for information; (3) hazardous calls requiring two cars which is originated by the dispatcher calling one car at a time; and (4) dangerous calls requiring two or more cars which is made for such emergencies as holdups, bank robberies, riots, and explosions.

The Kansas City training and procedure manual covers in detail other phases of radio communications including car to dispatcher transmissions, emergency transmissions from the car to the dispatcher, going out of service to check cars or pedestrians, the use of three-way radio for car-to-car communications, and general rules on use of the outside speaker, radio equipment, and radio etiquette.

Radio communications assume greater importance in one-man car operations as a means of protecting the lone officer and providing him with help whenever needed. One-man patrol car operators in turn are obligated to work closely with the communications officers and dispatchers. Quoting from the Los Angeles daily training bulletin, "Some police procedures which are generally accepted for any type of patrol unit become very important when applied to the one-man car. Radio officers working alone should be most conscientious about clearing calls as soon as possible. In any event, a call should be cleared within 10 minutes; otherwise, communications will request a Code 1. If no acknowledgment is received, another unit will be dispatched to the location of the call. This procedure is set up primarily as a safety measure; all one-man units are asked to save dispatching of unnecessary units by adhering as closely as possible to the 10-minute time rule."

Smaller police departments probably can rely upon simpler rules and procedures for radio dispatching and communications. The supplement to this report reproduces the dispatching procedures for Madison, Wisconsin.

The Madison instructions are generalized statements. In practice the dispatcher sends a minimum of six cars to the scene of a burglary or other major offense. Two of the cars go to the scene of the crime, and the other four patrol on a quadrant away from the locale. At least two cars are sent for every domestic disturbance, and the sergeant, if available, also is sent.

Equipment

Installation of one-man patrol cars will mean purchase of additional patrol cars and higher operating and maintenance costs. In the change-over in Kansas City, 16 new patrol cars were purchased at an average cost of about $3,000 per car. This figure included three-way radio, lights, sirens, and other equipment. Costs of maintenance and operation increased from $254,852 in 1952 to $343,792 in 1954. Part of this increase came from 20 additional patrol cars and the balance from increased maintenance and operating costs. Mileage for patrol cars increased from 1,227,262 miles in 1952 to 2,777,460 miles in 1954. These increases of course should be compared with more effective use of manpower, better police service, and more intensive patrol coverage.

Radio communications are particularly important in one-man car operations. Two-way radios are essential, and many cities use three-way radios. Kansas City states that use of the three-way

radio is desirable for "(1) It proved a significant safety factor in enabling the officer to summon immediate assistance of patrol cars in neighboring areas; (2) gave a feeling of security to the officer riding alone; and (3) tended to alleviate the work load of the radio dispatchers, making additional air time available."

Cities combining one-man cars with foot patrol find it desirable to have some means of summoning the officer to his car. Cleveland patrol cars are equipped with an electronic selective radio recall and flashing beacon on the roof of the vehicle. Kansas City has an outside speaker installed behind the grill work of the patrol car. The speakers are controlled by a switch on the dashboard of the car allowing the officer to turn it on or off as the situation demands. Many cities use the flashing red dome light mounted on the top of the patrol car. This light is useful in making emergency runs and in stopping pursued vehicles.

Acknowledgments. The cooperation of several police chiefs and other officials has made this report possible. Grateful acknowledgment is made to these persons for permitting use of the materials cited. *Report on One Man Police Patrol Cars in Kansas City, Missouri* and *Pomona Police--Patrol Force Distribution, 1955* are available on loan to MIS subscribers. The departmental police manuals for Kansas City and Pomona will be made available on loan to MIS subscribers as soon as they have been completed.

Kansas City, Missouri, Bernard C. Brannon, chief of police. *Report on One Man Police Patrol Cars in Kansas City, Missouri,* 1955, 19pp. (a description of the change-over in this city with comparative statistics on two-man cars in 1952 and one-man cars in 1954). *Training and Procedure in One Man Police Patrol Car Operation,* 1956, 58pp. (a tentative departmental manual that is being revised and edited for possible publication in 1957).

Los Angeles, California, W. H. Parker, chief of police. *The Daily Training Bulletin* (eight issues on one-man patrol issued December 28-31, 1953 and January 4-7, 1954).

Madison, Wisconsin, Bruce Weatherly, chief of police. *Police Tactics* (a portion of the departmental *Manual of Procedure*).

Pomona, California, Ralph E. Parker, chief of police. *Pomona Police--Patrol Force Distribution, 1955,* 27pp. (a comprehensive analysis of patrol requirements and beat alignment for one-man cars). *Rules and Regulations Governing Operation of One-Man Patrol Cars,* 1956, 4pp. (a portion of the departmental manual now being compiled).

St. Louis, Missouri, Governmental Research Institute, 763 Paul Brown Building, St. Louis 1. *A Report on One-Man Police Patrol Car Operation,* 1955, 31pp. (provides comparative data on the use of one-man cars in large cities together with recommendations on installation and use of one-man cars in St. Louis.

SUPPLEMENT TO MIS REPORT NO. 154

Duties on One-Man Patrol, Kansas City, Missouri

III. *Patrolling the Beat Area.*

The principal purpose of patrol is to prevent the commission of crime. The effectiveness of patrol in decreasing the opportunity for unlawful acts and increasing the offender's fear of being apprehended is in direct proportion to the observed frequency of patrol. To this end the patrol officer must afford adequate police protection and service to his entire beat by continual and selective patrol.

1. The methods of patrol shall be flexible and unpredictable.
   A. The officer shall vary the route of his patrol by criss-crossing, doubling back and circling his beat. He will not develop fixed and predictable patrol pattern habits.
   B. Eating habits should be varied as to time and place.

C. The officer will avoid the habit of meeting a friend or fellow officer at a given location at a certain time.
D. He shall objectively evaluate his patrolling methods periodically to avoid the development of predictable habits.

2. The patrol officer shall make his patrol as conspicuous as possible. Patrol cars are painted white to promote the psychological effect that conspicuous patrol has upon the general public and those persons with criminal tendencies. This technique offers the following advantages:
   A. It gives those who need assistance greater opportunity to find the officer when communication facilities are not immediately available.
   B. The sight of a police officer is often a deterrent to those who have criminal tendencies.
   C. It gives the public a feeling of greater security as the officer is more often seen.
   D. It tends to create the impression that patrol is more frequent and coverage is more extensive.

3. From time to time the patrol officer will park his patrol car at selected locations to observe the happenings on his beat. This method, when properly employed, will reveal conditions which the officer may not become aware of during long periods of continuous movement.
   A. Good judgment will on occasion dictate the parking of the patrol car in the proximity of:
      (1) Any activity which arouses the officer's suspicion.
      (2) Areas where crime incidence is high.
      (3) Main intersections and traffic arteries.
      (4) Playgrounds, parks and schools.
   B. During night hours, headlights on the patrol car should be turned off when parked.
   C. Alertness of an officer to his surroundings requires effective use of the sense of hearing as well as sight.

4. The patrol officer shall think of himself as a motorized foot patrolman. The effectiveness of the motorized police officer is materially increased by use of foot patrol on occasion. This patrol method will normally be most used during the hours of darkness and on holidays.
   A. The purpose of foot patrol is to enable the officer to make a more detailed inspection of:
      (1) Areas which are not accessible to an automobile.
      (2) Business properties and establishments.
      (3) Parks and playgrounds.
      (4) School buildings and other public properties.
   B. Before going on foot patrol, the officer will advise the dispatcher by radio of his location, that he will be on foot patrol, and the dispatcher will place his unit out of service if the request is granted.
   C. Before leaving the patrol car, the officer will properly park the car, remove keys, check the riot gun to be sure it is securely locked in its bracket and the car door will be closed.
   D. An officer returning from foot patrol will immediately report to the dispatcher that his unit is in service.
   E. Normal allowable time for foot patrol will be 20 minutes. When an officer has not returned to service after an elapsed time of twenty minutes, the dispatcher will send another officer to investigate.

Rules and Regulations on One-Man Patrol, Pomona, California

The One-Man Patrol Car

1. When you come upon an unusual situation, you should request assistance. This isn't an indication of cowardice, but good common sense.

2. You must train yourself to become conscious of the importance of staying in contact with communication. Never leave your car without first checking out with communications, giving your location and nature of call. It is equally important that you check back into service.

3. Always remove your ignition key when leaving your car. (Make a habit of placing the key in the same pocket at all times in order to avoid fumbling.)

4. It will be more difficult to patrol and observe while driving alone. Drive at a low speed and keep to the right so as not to impede normal flow of traffic. All traffic laws *must be observed.*

5. The patrol technique employed in the operation of one-man patrol cars will be principally one of prevention. The officer should make his patrol as conspicuous as possible, and with the smaller beat areas should be able to cover the entire beat to a greater advantage. Do not establish a routine pattern of patrol. Vary your route.

6. A single officer should not attempt to question two or more persons suspected of having committed a crime. The officer will notify the dispatcher requesting another car for assistance.

7. When transportation is needed by a one-man car for a prisoner, the dispatcher will send another car. The assisting car will be *locked* and left legally parked while the two officers effect the transportation of the prisoner.

8. *A one-man patrol car will not leave its assigned beat area unless dispatched to another area by the office or, unless in pursuit of a suspect vehicle.*

9. Officers will make arrangements with their shift commanders as to their eating periods and because of the heavy schedule, they will adhere closely to the 30 minute allotted eating period. Officers on day and swing shift may eat at home if the 30 minute period is given full consideration.

10. If an investigation in the field takes more than 10 minutes, contact should be made with communications. If an officer does not clear with communications after a lapse of 10 minutes, a car from an adjacent area will be dispatched for a check of the other officer.

11. Whenever a one-man police car stops a car for any purpose, he will give communications the license number of the car and exact location of the stop; i.e., Unit #6 stopping car in front of 776 West Holt - License #1W2675 - Traffic only.

12. If a pursuit is started by a one-man car, he will immediately notify Communications of his unit number and that he is "in pursuit." The Dispatcher will at once clear the frequency. The police unit will then automatically give as follows:

    1. Direction traveled;
    2. the street traveled on;
    3. the last street crossed;
    4. if the chase began suddenly and Communications does not already have the information, the license number, the make, model and color of the suspects' car, the number of suspects, and the reason they are wanted should be given.

    When using the siren, the volume of the radio should be increased. Location should be broadcast as often as possible. Changes of route need only be indicated by the new direction and the new street, as Communications knows the street just traveled on. The police car should be kept about fifty feet behind the suspects' car. This distance is close enough to prevent cross traffic from interfering and yet far enough to prevent losing the suspect because of a change of direction or sudden stop.

    It is impractical for a single officer to attempt to fire his gun during a high-speed chase. The chance of hitting the suspect is slight, but the chance of hitting an innocent person is

increased. It is recommended that the officer hold his fire until suspects are stopped. Then, if it is necessary to shoot, his fire will be more effective.

13. The Desk Sergeant will, when a police car leaves its assigned beat for any length of time, assign a police unit in an adjacent area to extend its patrol to cover both areas temporarily. When the absent unit returns to its area, the other unit will immediately resume patrol in its own area.

Duties of the Dispatcher, Madison, Wisconsin

I. *Duties of the Dispatcher.*

1. On receipt of information as to the location and type of crime being committed the Dispatcher shall immediately notify the patrol cars to proceed to the scene while he gathers further information from the complainant as to the description and exact location or position of the criminal. Immediately on receipt of additional information it shall be broadcast.
2. The Dispatcher shall send the car on the district where the crime is being committed and as many cars from adjoining districts as he thinks will be needed to cut off the criminal's escape. He shall also send the Investigator and the Patrol Sergeant, making certain that they receive the call and have all available details concerning it.
3. The Dispatcher shall consult his map and direct the approach of the cars as he sees fit. He shall use extreme care to direct the cars going to the scene in the best manner to cut off all possible escapes including alleys, etc.
4. The Dispatcher shall continue to give instructions to the cars as he receives more information and he should have formed a mental picture of the scene from his map and be able to direct the cars with more effectiveness.
5. The Dispatcher shall repeat the description of the criminal and give all possible details as he gets them. He shall decide when the cars are to be released and whether they are to be assigned spot positions in an effort to apprehend the criminal.
6. If it be a serious crime involving the necessity of calling out off duty officers, the Dispatcher shall notify the commanding headquarters officer with instructions to notify his men. If the commanding officers of the various details cannot be located, then the headquarters officer shall notify the men of the other details.
7. After the arrival of the Patrol Sergeant on the scene he may notify the Dispatcher over his radio of any changes in the position of the cars which would prove more beneficial in preventing the escape of the criminal.